

another carrier.”³⁵ The FCC concluded in its Ameritech Michigan Order that, when a BOC relies upon more than one competing provider to satisfy § 271(c)(1)(A), each carrier need not provide service to both residential and business customers.³⁶

B. Discussion

VZ-MA seeks approval to enter the interLATA market under Track A based on the interconnection agreements it has implemented with competing carriers in Massachusetts. The Department has approved, pursuant to § 252 of the Act, more than 70 binding interconnection agreements between VZ-MA and unaffiliated, competing providers of telephone exchange service.³⁷ These agreements require VZ-MA to provide “access and interconnection to its network facilities for the network facilities of unaffiliated competing providers [to] . . . residential and business customers.”³⁸ The agreements expressly provide for CLEC access to VZ-MA’s facilities and network elements. In particular, VZ-MA cites its Department-approved interconnection agreements with AT&T, WorldCom, and RCN to show it has

³⁵ Id.

³⁶ Application of Ameritech Michigan Pursuant to Section 271 of the Communications Act of 1934, as amended, To Provide In-Region, Inter-LATA Services in Michigan, Memorandum Opinion and Order, 12 FCC Rcd 20543, 20589 (1997) (“Ameritech Michigan Order”).

³⁷ See VZ-MA Application, Appdx. A, Vol. 5, Tab 6, Att. A, Exh. 5 (Taylor Decl.).

³⁸ 47 U.S.C. § 271(c)(1)(A).

satisfied the Track A requirements.³⁹ VZ-MA states that competing carriers in Massachusetts serve more than 400,000 subscribers over their own facilities.⁴⁰

The Department agrees that VZ-MA satisfies § 271(c)(1)(A) requirements. The record shows that VZ-MA's interconnection agreements provide some CLECs with access and interconnection to VZ-MA's network for service offered exclusively or predominantly over the CLECs' facilities to residential and business customers. For example, AT&T Broadband and RCN offer local telephone service to residential customers using their own networks and facilities, and WorldCom, among others, offers local service to business customers over its facilities. VZ-MA's interconnection agreements specify the rates, terms and conditions under which VZ-MA will provide such access and interconnection. CLECs such as AT&T, WorldCom, and RCN, among others, are currently receiving access and interconnection to VZ-MA's network facilities pursuant to their respective interconnection agreements. In addition, no participant challenges VZ-MA's assertion in this regard.

³⁹ VZ-MA Application at 4-8; VZ-MA Application, Appdx. A, Vol. 5, Tab 6, Att. A at 5-8 (Taylor Decl.).

⁴⁰ VZ-MA Application, Appdx. A, Vol. 5, Tab 6, ¶ 25 (Taylor Decl.).

V. VZ-MA COMPLIANCE WITH § 271(C)(2)(B) - THE COMPETITIVE CHECKLIST

A. Checklist Item 1 – Interconnection

1. Trunking

a. Standard of Review

The BOC's provision of interconnection trunking is one common means of interconnection. To implement the "equal in quality" requirement in § 251, the FCC requires an incumbent local exchange carrier ("ILEC") to design and operate its interconnection facilities to meet the same technical criteria and service standards that are used for the interoffice trunks within the ILEC's network.⁴¹ The FCC has identified trunk group blockage and transmission standards as indicative of whether a BOC's interconnection facilities are "equal in quality" to the ILEC's own network.⁴²

In order to meet the requirement that it provide interconnection on terms and conditions that are "just, reasonable, and nondiscriminatory," the FCC has found that an ILEC must provide interconnection to a competitor in a manner no less efficient than the manner in which it provides the comparable function in its retail operations.⁴³ The FCC looks at, among other

⁴¹ Bell Atlantic New York Order at ¶ 64.

⁴² Id.

⁴³ Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, First Report and Order, 11 FCC Rcd 15499, at ¶ 209 (1996) ("Local Competition First Report and Order"), aff'd in part and vacated in part sub nom, Competitive Telecommunications Ass'n v. FCC, 117 F.3d 1068 (8th Cir.

(continued...)

things, the ILEC's installation intervals for interconnection service and its provisioning of two-way trunking, as well as the ILEC's repair time for troubles involving interconnection trunks.⁴⁴

b. Discussion

VZ-MA argues that it provides interconnection trunking through interconnection agreements and through its wholesale tariff, M.D.T.E. Tariff No. 17.⁴⁵ According to VZ-MA, it provides interconnection at any technically feasible point, including mid-span meets and physical and virtual collocation.⁴⁶ Carriers may order interconnection trunks electronically via Connect:Direct, or manually by fax.⁴⁷ VZ-MA provides 64 kilobits per second ("kbps") Clear Channel interconnection trunks in addition to the traditional 56 kbps interconnection trunks, and makes two-way measured-use trunking available.⁴⁸ VZ-MA states that as of June 2000,

(...continued)

1997) and Iowa Utils. Bd. v. FCC, 120 F.3d 753 (8th Cir. 1997), aff'd in part and remanded, AT&T v. Iowa Utils. Bd., 525 U.S. 366 (1999).

⁴⁴ Bell Atlantic New York Order at ¶ 65.

⁴⁵ VZ-MA Application, Appdx. B, Vol. 42, Tab 494, ¶ 11 (VZ-MA August Supplemental Checklist Aff.).

⁴⁶ In D.T.E. 98-57, the Department rejected a proposal by VZ-MA to require CLECs to establish geographically relevant interconnection points. See VZ-MA Application, Appdx. E, Vol. 16, Tab 260, at 128-135 (D.T.E.'s Order Approving Revisions to Resale Tariff No. 14 and Denying Interconnection Tariff No. 17).

⁴⁷ VZ-MA Application, Appdx. B, Vol. 32a-b, Tab 423, ¶ 29 (VZ-MA May Checklist Aff.).

⁴⁸ VZ-MA Application, Appdx. A, Tab 1, ¶¶ 12-13 (Lacouture/Ruesterholz Decl.).

VZ-MA had 290,000 interconnection trunks in service with 29 CLECs.⁴⁹ VZ-MA reports that these trunks were carrying an average of 1.9 billion minutes of traffic per month by July 2000.⁵⁰ VZ-MA states that it added approximately 275,000 trunk terminations to its network in 1999 in order to meet growing demand, and that it plans to further expand the trunk capacity of its switches this year by approximately 320,000 trunk terminations.⁵¹

VZ-MA asserts that it provides local interconnection in Massachusetts using substantially the same processes and procedures that are employed in New York (and which were found by the New York Public Service Commission ("NYPSC") and the FCC to meet the requirements of the Act), and that it makes each type of interconnection specified by the FCC available at all technically feasible points.⁵²

VZ-MA claims that traffic utilization studies conducted in Massachusetts from August 1999 through July 2000 provide further evidence that VZ-MA is provisioning trunks to CLECs in a non-discriminatory manner. In May through July, 2000, the ratio of trunks required to operate at engineering design level B.005⁵³ to trunks in service was 33.4 percent for CLEC-

⁴⁹ VZ-MA Application, Appdx. B, Vol. 47, Tab 555, at 5257-5258 (Transcript of Technical Session held 09/01/00).

⁵⁰ VZ-MA Application, Appdx. A, Tab 1, ¶ 10 (Lacouture/Ruesterholz Decl.).

⁵¹ Id. at ¶ 11.

⁵² Id. at ¶ 8.

⁵³ The B.005 blocking standard is ½ percent blocking (one call blocked out of every 200
(continued...))

dedicated final trunk groups, and 68.0 percent for VZ-MA's common final trunk groups.⁵⁴

According to VZ-MA, this demonstrates that VZ-MA is providing better service to CLECs in the aggregate (i.e., trunk groups provided CLECs experience blockage less frequently than VZ-MA's retail trunk groups) by having installed considerably more interconnection trunks than engineering design and traffic patterns require.⁵⁵

In hearings and in written comments, several carriers raised concerns regarding VZ-MA's provisioning and maintenance of interconnection trunks. Most of the complaints were anecdotal, or concerned issues that have already been addressed to the Department's satisfaction. Two carriers, however, raised substantive complaints that will be addressed in this evaluation.

AT&T has raised numerous complaints concerning VZ-MA's provisioning of interconnection trunks. AT&T claims that its ability to serve customers has been hampered by VZ-MA's inability to provide digital equipment in the Cambridge tandem until August, 2000.⁵⁶ AT&T also claims that, despite having provided VZ-MA with a forecast of its need for

(...continued)

calls attempted) during the busiest hour of the day over a four-week measurement period. VZ-MA Application, Appdx. B, Vol. 32a-b, Tab 423, ¶ 36 (VZ-MA May Checklist Aff.).

⁵⁴ VZ-MA Application, Appdx. A, Tab 1, ¶ 27 (Lacouture/Ruesterholz Decl.).

⁵⁵ Id.

⁵⁶ VZ-MA Application, Appdx. B, Vol. 38, Tab 460, at 42 (AT&T July Supplemental Comments).

trunking associated with its South Boston switch, VZ-MA has informed AT&T that it does not have sufficient interoffice facilities ("IOF") to provide enhanced 911, and that as a result AT&T has been waiting for these facilities for 14 months.⁵⁷

Concerning the availability of 64 kbps Clear Channel trunks at the Cambridge tandem, VZ-MA admits that this older switch has reached its physical installed capacity for Clear Channel trunks, and that nearly all of those trunks are in use.⁵⁸ VZ-MA provided a copy of an industry letter dated July 6, 1999, informing CLECs of the constraints in the Cambridge tandem, and informing CLECs that new carrier customers without any Clear Channel trunks would be provided with a maximum of 24 64 kbps trunks (i.e. one DS1) if traffic demands require it.⁵⁹ VZ-MA noted that it is not provisioning Clear Channel trunks to itself while denying them to CLECs, and that the "as required" allocation applies to the entire industry including VZ-MA.⁶⁰ VZ-MA indicated that this "as required" allocation of Clear Channel trunks in Cambridge was instituted in order to manage traffic pending the completion of a new access tandem in Newton; and, now that the Newton tandem is complete, CLECs can obtain 64 kbps Clear Channel trunks from Newton and reduce the number of Clear Channel trunks they

⁵⁷ Id.

⁵⁸ VZ-MA Application, Appdx. A, Tab 1, ¶ 13 (Lacouture/Ruesterholz Decl.).

⁵⁹ VZ-MA Application, Appdx. B, Vol. 32a-b, Tab 423, ¶ 25 (VZ-MA May Checklist Aff., Exhibit A).

⁶⁰ VZ-MA Application, Appdx. B, Vol 42, Tab 494, ¶ 17 (VZ-MA August Supplemental Checklist Aff.).

have in Cambridge.⁶¹

AT&T also claims that VZ-MA misses or arbitrarily changes due dates. AT&T claims that out of 422 orders submitted between March and June of 2000, VZ-MA was the sole cause of 64 missed due dates, a 15 percent failure rate.⁶² AT&T also reports that in March 2000, VZ-MA changed the due dates for seven VZ-MA-initiated orders 18 times because VZ-MA was unable to test the trunks.⁶³ AT&T notes that when ILEC-ordered trunks are not provisioned in a timely fashion, ILEC customers may be unable to complete calls to CLEC customers, thus hampering the spread of competition.⁶⁴

Responding to AT&T's complaint concerning the 64 missed due dates on 422 orders, VZ-MA contends that AT&T only submitted 19 orders between March and June of 2000, eight of which were actually initiated by VZ-MA.⁶⁵ VZ-MA asserts that AT&T raised a similar complaint in New York, where it was ultimately determined that AT&T had included special

⁶¹ VZ-MA Application, Appdx. A, Tab 1, ¶ 13 (Lacouture/Ruesterholz Decl.).

⁶² VZ-MA Application, Appdx. B, Vol. 38, Tab 460, at 42 (AT&T July Supplemental Comments).

⁶³ Id.

⁶⁴ Id.

⁶⁵ VZ-MA Application, Appdx. B, Vol. 42, Tab 494, ¶ 36 (VZ-MA August Supplemental Checklist Aff.).

access services in its count of total orders.⁶⁶ VZ-MA also claims that of the eleven remaining orders not initiated by VZ-MA, AT&T made supplements or other changes to seven of those orders, which extended the due dates.⁶⁷ In addition, VZ-MA claims that the provisioning of six of the eleven orders was delayed due to instances of “customer not ready” (“CNR”).⁶⁸

With regard to AT&T’s allegation of arbitrarily changed due dates, VZ-MA claims it is unable to respond because it has not received specific order information from AT&T, but that it completed 47 VZ-MA-initiated trunk orders in March 2000, many of which had AT&T-generated supplements, and 32 of which involved instances of CNR.⁶⁹

Winstar argues that VZ-MA’s performance in the maintenance and repair of interconnection trunks is deficient, and has adversely affected its ability to compete. Winstar states that in September, 1999, VZ-MA (without providing notice to Winstar) moved the terminating end of a trunk group to a switch that did not work.⁷⁰ Winstar claims that VZ-MA did not test the switch prior to moving the trunk group, and that Winstar’s customers were

⁶⁶ Id.

⁶⁷ Id. at ¶ 37.

⁶⁸ Id. at ¶ 38.

⁶⁹ Id. at ¶ 40.

⁷⁰ VZ-MA Application, Appdx. B, Vol. 38, Tab 464, at 3 (Winstar July Supplemental Comments)

unable to place or receive calls as a result of the reconfiguration to the malfunctioning switch.⁷¹

Winstar claims that its customers suffered this outage longer than necessary because of VZ-MA's decision to leave the trunk group in its new configuration and try to repair the switch rather than to restore the trunk group to its original configuration pending the repair of the switch.⁷²

Winstar also complains that VZ-MA's method of reporting its performance concerning outages does not capture the true extent of VZ-MA's responsibility for the length of outages.⁷³ Winstar disagrees with VZ-MA's practice of "stopping the clock" when VZ-MA refers a CLEC-reported problem back to the CLEC for a further check of the CLEC's systems, arguing that it artificially reduces the length of the outage for which VZ-MA is held responsible.⁷⁴ Winstar argues that VZ-MA remedies many outages and scores them as "cleared while testing," further obscuring its own responsibility for the outages.⁷⁵

Winstar complains that VZ-MA is provisioning 64 kbps Clear Channel trunks in a discriminatory manner, because VZ-MA has not had capacity in its Cambridge switch to provide Clear Channel trunks since July 1999 and is not making additional Clear Channel

⁷¹ Id. at 3-4.

⁷² Id. at 4.

⁷³ Id.

⁷⁴ Id.

⁷⁵ Id. at 5.

trunks available until the fourth quarter of 2000.⁷⁶ Winstar further argues that VZ-MA is not provisioning available trunks for CLECs in a timely fashion, resulting in Winstar's customers' calls being blocked due to inadequate trunking capacity.⁷⁷

In response to Winstar's comments concerning the September 1999 outage, VZ-MA admitted responsibility for the outage, which it attributed to human error.⁷⁸ In addition, in order to prevent this type of outage in the future, VZ-MA implemented a "Winstar Service Improvement Action Plan," which indicated VZ-MA's willingness to enter into additional dialogues with Winstar in order to jointly identify network capabilities and requirements.⁷⁹

VZ-MA argues that "stopping the clock" on its measured responsibility for an outage when it fails to find a problem and refers the outage back to the CLEC is a long-standing practice, the same practice followed when investigating trouble reports from interexchange carriers ("IXCs"), and consistent with the assumptions upon which the C2C Guidelines are constructed.⁸⁰

VZ-MA notes that Winstar is responsible for measuring its own blocking at its switch,

⁷⁶ Id. at 6.

⁷⁷ Id.

⁷⁸ VZ-MA Application, Appdx. B, Vol. 42, Tab 494, ¶ 23 (VZ-MA August Supplemental Checklist Aff.).

⁷⁹ Id.

⁸⁰ Id. at ¶ 24.

and VZ-MA does not know when Winstar's local VZ-MA-bound traffic is exceeding the B.005 threshold at the Winstar switch.⁸¹ VZ-MA responds that if Winstar's customers' calls are being blocked due to inadequate trunking capacity, then the remedy is for Winstar to order additional trunks to carry Winstar traffic to VZ-MA.⁸²

c. Conclusions

VZ-MA provided two types of data to demonstrate its interconnection performance: (a) the C2C metrics for Massachusetts, measuring the quality of ordering and provisioning interconnection trunks, maintenance of interconnection trunks, and the performance of interconnection trunks after installation (*i.e.* trunk blockage); and (b) data showing VZ-MA's aggregate performance for six different categories of CLEC trunking orders.

From May through July 2000, the C2C reports reveal that, on average, 1.08 percent of VZ-MA's final trunk groups exceeded the B.005 blocking standard, compared to 1.05 percent of CLECs' final trunk groups.⁸³ During the same period of time, only three CLEC dedicated final trunk groups exceeded the blockage standard for two consecutive months, and none exceeded the blockage standard for three consecutive months. Finally, during the same period, CLECs fared as well or better than IXC's when it came to the provisioning of trunks. In

⁸¹ Id. at ¶ 29.

⁸² Id.

⁸³ VZ-MA Application, Appdx. B, Vol. 42, Tab 494, Exh. G1 (VZ-MA August Supplemental Measurements Aff.); Appdx. B, Vol. 47, Tab 552 (VZ-MA Performance Reports for July 2000).

addition, the aggregate data reveal that VZ-MA consistently met the target and negotiated provisioning intervals except in orders involving CNR.⁸⁴ The performance data show that VZ-MA is provisioning and maintaining interconnection trunks in a non-discriminatory manner.

Furthermore, the Department finds VZ-MA's replies fully responsive to AT&T's and Winstar's complaints. VZ-MA admitted responsibility for the September 1999 outage that put Winstar's customers temporarily out of service, and implemented a service plan to insure that similar problems do not arise in the future. Winstar has not suggested that VZ-MA's fix was inadequate; the record reflects that a one-time problem arose, and that VZ-MA addressed the problem. The Department also finds that VZ-MA is correctly measuring its proportional responsibility for outages. Furthermore, the Department finds that VZ-MA's completion of a new access tandem in Newton, and its application of the "as required" allocation standard for Clear Channel trunks to itself as well as to its competitors, was an appropriate response to the constraints at the Cambridge tandem.

Concerning AT&T's allegations, the record reflects a disagreement between AT&T and VZ-MA concerning the definition of an order. VZ-MA stated that VZ-MA considers a trunk order an "order," and that AT&T considers each individual DS1 as a separate order.⁸⁵ During the oral argument, AT&T asked for the Department's assistance in determining the

⁸⁴ VZ-MA Application, Appdx. A, Tab 3, Attachment F (Guerard/Canny Decl.).

⁸⁵ VZ-MA Application, Appdx. B, Vol. 47, Tab 555, at 5261-5262 (Transcript of Technical Session Held 09/01/00).

provisioning interval for trunking orders, and complained that VZ-MA is able to unilaterally categorize orders as being part of complex "projects."⁸⁶ However, at a technical session, AT&T stated that it had no problem with VZ-MA's aggregation of orders into projects per se, but that it has had reason to object to the categorization of some orders as projects, and that the categorization issue is not currently a major problem for AT&T.⁸⁷ AT&T also conceded that some of the difference in the order counts reported by AT&T and by VZ-MA may be due to VZ-MA grouping orders into projects.⁸⁸ VZ-MA stated that all projects are managed through interactions between the CLEC and VZ-MA project managers, but that because projects tend to change over time there exists a potential for mis-communication between the VZ-MA and CLEC project managers.⁸⁹ VZ-MA conceded that such mis-communications have occurred.⁹⁰ The underlying difficulty appears to be one of communication, not of provisioning performance.

The Department also notes that only two carriers alleged serious problems with VZ-MA's trunking performance. If VZ-MA's trunking performance were seriously deficient, the

⁸⁶ VZ-MA Application, Appdx. B, Vol. 49, Tab 565, at 5461 (Transcript of Oral Argument Held 09/08/00).

⁸⁷ VZ-MA Application, Appdx. B, Vol. 47, Tab 555, at 5357 (Transcript of Technical Session Held 09/01/00).

⁸⁸ Id. at 5352.

⁸⁹ Id. at 5279, 5281-5282.

⁹⁰ Id.

Department would expect to have received complaints from a greater number of carriers. This is not to minimize the difficulties encountered by Winstar and AT&T; indeed, a degree of mis-communication between VZ-MA and the CLECs is apparent regarding when an interconnection trunk is considered an individual order and when it is considered a portion of a larger project. Because VZ-MA has been responsive to CLEC complaints concerning interconnection trunking, the Department expects that the parties will be able to work collaboratively to arrive at a mutually satisfactory definition of an "order" or, at the very least, clearly define the point at which an order for a trunk or series of trunks ceases to be treated independently and is grouped into a larger "project." Although some mis-communication continues, it is not a significant barrier to competition and is not sufficient to warrant a finding of non-compliance with the trunking portion of the interconnection requirement.

In any event, where problems have arisen, they have been sporadic or occasional -- not systemic-- and a good faith and successful effort has been made to resolve them. For the reasons stated above, the Department finds that VZ-MA has satisfied the trunking portion of the interconnection requirement.

2. Collocation

a. Standard of Review

In order to establish compliance with § 271(c)(2)(B)(i), “a BOC must demonstrate that it can furnish collocation.”⁹¹ A BOC must have processes and procedures in place available through a state-approved tariff to ensure the availability of physical and virtual collocation arrangements in accordance with § 251(c)(6) and applicable FCC rules.⁹² Generally, the FCC requires ILECs to provide competitors shared cage and cageless collocations; security requirements no more stringent than the incumbent’s own requirements; around-the-clock access to equipment; and access to unused or adjacent central office space as technically feasible.⁹³ Moreover, the FCC notes that data showing the quality of procedures for processing applications for collocation space, as well as the timeliness and efficiency of provisioning collocation space, helps the FCC evaluate a BOC’s compliance with its collocation obligations.⁹⁴

⁹¹ Application of BellSouth Corporation, et al., for Provision of In-region, Inter-LATA Services in Louisiana, CC Docket No. 98-271, Memorandum Opinion and Order, 13 FCC Rcd at 20640-41, at ¶ 62 (1998) (“Second BellSouth Louisiana Order”).

⁹² 47 C.F.R. §§ 51.321-23 (implementing 47 U.S.C. § 251(c)(6)).

⁹³ Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147, First Report and Order and Further Notice of Proposed Rulemaking, FCC 99-48 (rel. March 31, 1999) (“Advanced Services Order”).

⁹⁴ SBC Texas Order at ¶ 64.

b. Discussion

VZ-MA states that it provides CLECs with several types of physical and virtual collocation, and other collocation alternatives, and notes that Tariff No. 17 includes comprehensive collocation terms and conditions.⁹⁵ VZ-MA indicates that through July 2000, VZ-MA has provided over 1,600 collocation arrangements (both physical and virtual) in Massachusetts, with approximately 170 collocation arrangements in progress.⁹⁶ VZ-MA states that, through July 2000, it has placed in service 759 traditional physical collocation arrangements, 850 cageless arrangements (705 Secured Collocation Open Physical Environment (“SCOPE”) arrangements and 145 Cageless Collocation Open Environment (“CCOE”) arrangements), and three virtual collocation arrangements.⁹⁷ VZ-MA states that through these arrangements, CLECs have access to more than 94.5 percent of VZ-MA’s residential access lines and 96 percent of VZ-MA’s business access lines.⁹⁸ VZ-MA also offers shared caged collocation and adjacent collocation arrangements, but has yet to receive a

⁹⁵ VZ-MA Application, Appdx. B, Vol. 32a-b, Tab 423, ¶ 64 (VZ-MA May Checklist Aff.).

⁹⁶ VZ-MA Application, Appdx. A, Tab 1, ¶ 34 (Lacouture/Ruesterholz Decl.).

⁹⁷ Id. at ¶¶ 35, 49. SCOPE arrangements, unlike CCOE, are located in separate, secure areas within VZ-MA’s central offices.

⁹⁸ Id. at ¶ 34.

formal request for either of these two arrangement types.⁹⁹ In addition, VZ-MA states that it provides Collocation at Remote Terminal Equipment Enclosures ("CRTEE") under amendments to interconnection agreements and through a proposed tariff.¹⁰⁰

According to VZ-MA, as of September 2000, space for some form of physical collocation was available in 224 central offices in Massachusetts.¹⁰¹ Of the remaining central offices in Massachusetts, VZ-MA states that three central offices have space for virtual collocation only, two do not have space for either physical or virtual collocation, 13 are pending reevaluation, and 29 central offices have never received collocation requests.¹⁰²

Contrary to CLEC claims, VZ-MA contends that it has demonstrated the ability to satisfy CLEC requests for collocation and the ability to meet CLECs' increasing demand for collocation.¹⁰³ VZ-MA also indicates that it provisions collocation arrangements in a standard 76-business-day interval, subject to a 15-day extension if the collocation space requires special

⁹⁹ Id. at ¶¶ 54, 55.

¹⁰⁰ Id. at ¶ 59.

¹⁰¹ VZ-MA Application, Appdx. A, Tab 1, ¶ 39 (Lacouture/Ruesterholz Decl.).

¹⁰² Id. In a filing dated September 28, 2000, VZ-MA notified the Department that space for physical collocation has been exhausted in an additional three central offices, but that virtual collocation is available in those locations.

¹⁰³ VZ-MA Application, Appdx. B, Vol. 32a-b, Tab 423, ¶¶ 75-77 (VZ-MA May Checklist Aff.).

or extraordinary conditioning.¹⁰⁴ Verizon states that during May through July 2000, VZ-MA met the due date for 96 percent of physical collocation jobs completed in those months.¹⁰⁵ VZ-MA maintains that, during the same period, it met the due date for 96 percent of SCOPE arrangements and 98 percent of CCOE arrangements.¹⁰⁶

AT&T and Covad challenged VZ-MA's compliance with its collocation obligations in their Pre-Filed Technical Session Statements and during the 1999 Technical Sessions.

Generally, AT&T and Covad raised concerns about the timeliness of VZ-MA's collocation provisioning, the quality of the collocation arrangements, and various VZ-MA-imposed terms and conditions pertaining to collocation. In addition, during the 2000 technical sessions, Rhythms raised concerns about virtual collocation arrangements and VZ-MA power charges.

c. Conclusions

Based upon the record, the Department concludes that VZ-MA complies with the collocation portion of checklist item 1. VZ-MA has demonstrated that its collocation offering satisfies the requirements of §§ 251 and 271 of the Act by making various types of physical (e.g., cageless) and virtual collocation available through a state-approved tariff (Tariff No. 17) at just, reasonable, and nondiscriminatory rates. Specifically, Tariff No. 17 underwent a thorough investigation in docket D.T.E. 98-57, in which numerous CLECs actively

¹⁰⁴ VZ-MA Application, Appdx. A, Tab 1, ¶ 37 (Lacouture/Ruesterholz Decl.).

¹⁰⁵ Id. at ¶ 38.

¹⁰⁶ Id. at ¶ 47.

participated. The Department conducted a comprehensive review of VZ-MA's proposed Tariff No. 17, and, in an Order issued on March 24, 2000, approved specific provisions of VZ-MA's collocation offering, including VZ-MA's collocation cost study,¹⁰⁷ and directed VZ-MA to file a compliance tariff consistent with that Order. In a subsequent Order issued on September 7, 2000, in D.T.E. 98-57-Phase I, the Department approved Tariff No. 17, finding it in compliance with the Department's earlier Order as well as with the requirements outlined in the FCC's Advanced Services Order, but directed VZ-MA to file a further compliance tariff for specific revisions and with specific cost studies.

In AT&T Communications of New England, Inc., D.T.E. 98-58 (1999),¹⁰⁸ the Department established additional requirements for VZ-MA in processing physical collocation requests, beyond those established by the FCC in its Advanced Services Order, to ensure that CLECs are able to gain prompt entry into the local services market. Among other things, this Order addressed: (1) response times for physical collocation requests, central office

¹⁰⁷ The majority of VZ-MA's collocation rates were approved in a series of Orders in the Department's Consolidated Arbitrations proceeding, during which the Department investigated VZ-MA's TELRIC collocation cost study. See VZ-MA Application, Appdx. H, Vol. 63, Tab 522 (Phase 4-G Order); VZ-MA Application, Appdx. H, Vol. 65, Tab 541 (Phase 4-H Order); VZ-MA Application, Appdx. H, Vol. 69, Tab 593 (Phase 4-I Order). The Department approved rates for additional collocation offerings in docket D.T.E. 98-57. See VZ-MA Application, Appdx. E, Vol. 16, Tab 260 (D.T.E. 98-57 March 2000 Order); Order, D.T.E. 98-57-Phase I (September 7, 2000). Rates for a few offerings will require further investigation, but most of this small subset are in effect subject to true-ups.

¹⁰⁸ VZ-MA Application, Appdx. D, Vol. 3, Tab 53 (D.T.E. Order on TCG's Request to Establish Rules re. Collocation Requests).

inspections, and incomplete applications; (2) timing and substance of notification of a space exhaustion filing; (3) CLEC tours of VZ-MA's central offices; (4) information to be included on VZ-MA's collocation web site; (5) reclamation of unused collocation space; (6) reduction of VZ-MA's administrative space in central offices; and (7) availability of pre-application information.¹⁰⁹

In addition, the Department is continuing its investigation of several VZ-MA collocation offerings, including CRTEE, adjacent collocation, and tariff provisions filed in compliance with the FCC's UNE Remand Order. Despite the continuing investigation, the Department notes that all of VZ-MA's collocation offerings are available to competitors through the tariff and under interconnection agreements subject to true-up and revision when the permanent provisions and rates are established upon completion of our review. Moreover, the Department has set a procedural schedule for completing our investigation of Tariff No. 17.

Upon review of VZ-MA's collocation performance, the Department finds that VZ-MA responds to physical collocation applications within the Department's prescribed period, and that VZ-MA provisions collocation arrangements in a timely manner. The record shows that for the first seven months of 2000, VZ-MA responded within ten days to requests for physical

¹⁰⁹ Id. at 13-26.

collocation, 100 percent of the time.¹¹⁰ In addition, VZ-MA's standard for on-time installation is 95 percent for both physical and virtual collocation, and the standard provisioning interval for both physical and virtual collocation is an average of 76 days.¹¹¹ For each of the first seven months of 2000, VZ-MA's on-time results for physical collocation were as follows: January, 92.59 percent; February, 100 percent; March, 98.61 percent; April, 98 percent; May, 97.56 percent; June, 95.91 percent; and July, 95.52 percent.¹¹² For each of the first seven months of 2000, the record shows that the average intervals in which VZ-MA provisioned physical collocation were as follows: January, 81.64 days; February, 71.69 days; March, 70.77 days; April, 75 days; May, 71.41 days; June, 74.42 days; and July, 75.44 days.¹¹³ Although VZ-MA did not meet the 95 percent standard for on-time installation in January 2000, the degree that VZ-MA's performance missed the mark was not substantial, and the Department finds that this is not indicative of any chronic provisioning problems that would hinder a finding of compliance with VZ-MA's collocation obligations. Likewise, VZ-MA did not meet the 76-day

¹¹⁰ VZ-MA Application, Appdx. B, Vol. 42, Tab 494, Exh. G1 (VZ-MA August Supplemental Measurements Aff.).

¹¹¹ VZ-MA Application, Appdx. E, Vol. 16, Tab 260 (D.T.E. 98-57 Order); VZ-MA Application, Appdx. D, Vol. 3, Tab 53 (D.T.E. 98-58 Order).

¹¹² VZ-MA Application, Appdx. B, Vol. 42, Tab 494, Exh. G1 (VZ-MA August Supplemental Measurements Aff.); VZ-MA Application, Appdx. A, Tab 3, Att. E (Guerard/Canny Decl.).

¹¹³ VZ-MA Application, Appdx. B, Vol. 42, Tab 494, Exh. G1 (VZ-MA August Supplemental Measurements Aff.); VZ-MA Application, Appdx. A, Tab 3, Att. E (Guerard/Canny Decl.).

standard interval for January 2000, missing it by more than five days. However, the Department finds that there is nothing in the record to indicate that a pattern of poor installation performance exists. To the contrary, for the succeeding six months, VZ-MA met or exceeded the 76-day standard.

Finally, although AT&T initially challenged VZ-MA's collocation provisioning performance, AT&T did not raise its concerns of provisioning delays this year. Likewise, AT&T and Covad raised concerns with specific terms and conditions of VZ-MA's collocation policies during the 1999 technical sessions but did not raise the same concerns thereafter. Furthermore, the Department's March 24, 2000 and September 7, 2000 Orders in D.T.E. 98-57 have addressed many, if not all, of the issues raised, including VZ-MA's policies on reservation of space, anti-warehousing, and training requirements for virtual collocation arrangements.

Rhythms, however, raised two new issues during the August 2000 technical sessions.¹¹⁴ The first issue relates to problems Rhythms experienced in mid-July 2000 when VZ-MA was allegedly unable to repair equipment involving an in-place conversion of a virtual collocation arrangement to a physical collocation arrangement.¹¹⁵ Rhythms indicates that it had to escalate the situation and, only after a three-day outage, was Rhythms permitted to bring in its own

¹¹⁴ VZ-MA Application, Appdx. B, Vol. 45, Tab 520, at 4269-4277 (Transcript of Technical Session Held 8/17/00).

¹¹⁵ Id. at 4272, 4276.

personnel to make the repairs.¹¹⁶ Thus, Rhythms argues that a CLEC cannot compete without access to its equipment, and that VZ-MA's virtual collocation arrangements are not effective.¹¹⁷ The second issue involves Rhythms' allegation that VZ-MA charges CLECs twice for power.¹¹⁸

As to the second issue, the Department notes that the power charges to which Rhythms refers have been approved by the Department as part of its Consolidated Arbitrations proceeding.¹¹⁹ During the course of that proceeding, CLECs had made the same assertions that VZ-MA was double charging for power. However, the Department determined that VZ-MA's method of estimating power costs was sound, because it properly accounted for the incremental energy costs associated with providing power to the CLECs' equipment.¹²⁰ Accordingly, we find Rhythms' claim is inadequate to support a finding of non-compliance with checklist item 1.

Turning to Rhythms' first issue, a review of the documentation provided by Rhythms indicates a much more complicated sequence of events than suggested by Rhythms. There was

¹¹⁶ Id. at 4276.

¹¹⁷ Id. at 4275.

¹¹⁸ Id. at 4272.

¹¹⁹ See VZ-MA Application, Appdx. H, Vol. 63, Tab 522, at 17-22 (Phase 4-G Order); VZ-MA Application, Appdx. H, Vol. 69, Tab 593 (Phase 4-I Order).

¹²⁰ VZ-MA Application, Appdx. H, Vol. 63, Tab 522, at 20 (Phase 4-G Order).

not a single isolated problem which VZ-MA was unable to repair, but a series of problems that apparently began two months earlier. Moreover, the situation involved a misunderstanding of VZ-MA's trouble reporting and escalation procedures by Rhythms' staff, and uncertainty on the part of both VZ-MA and Rhythms regarding how to address the service problem. We are not discounting the unfortunate effect this incident had on customers. Nevertheless, by a joint letter dated September 1, 2000, Rhythms and Verizon have taken affirmative steps to ensure that similar problems do not occur, such as revising VZ-MA's policies to allow a CLEC to dispatch a vendor, manufacturer, certified agent or technical support engineer to provide direction to VZ-MA's technicians.¹²¹ Accordingly, the Department finds that the record before us establishes that VZ-MA has met its collocation obligations under checklist item 1.

B. Checklist Item 2 – Unbundled Network Elements

1. Operations Support Systems

a. Background

In determining whether a BOC has satisfied the requirements of checklist item 2, the FCC has stated that it will examine whether the BOC provides competitors with nondiscriminatory access to its OSS.¹²² The FCC states that the nondiscriminatory standard for OSS functions requires the BOC "to offer requesting carriers access that is equivalent in terms

¹²¹ VZ-MA Application, Appdx. B, Vol. 47, Tab 554 (VZ-MA/Rhythms Letter to D.T.E. re. Compliance with 8/17/00 Order).

¹²² Bell Atlantic New York Order at ¶ 84.

of quality, accuracy, and timeliness” to any functions that the BOC provides to itself or its affiliates.¹²³ For OSS functions that have no retail analogue, the BOC must provide access “sufficient to allow an efficient competitor a meaningful opportunity to compete.”¹²⁴

The FCC has stated that it will follow a two-step approach to its review of whether a BOC has met the OSS requirements of checklist item 2. Under the first step, the FCC states the BOC “must demonstrate that it has developed sufficient electronic . . . and manual interfaces to allow competing carriers equivalent access to all of the necessary OSS functions.”¹²⁵ As part of this requirement, the BOC must “provide competing carriers with the specifications necessary for carriers to design or modify their systems in a manner that will enable them to communicate with the BOC’s systems and any relevant interfaces.”¹²⁶ Under the second step, the FCC has stated that it will “examine performance measurements and other evidence of commercial readiness to ascertain whether the BOC’s OSS is handling current demand and will be able to handle reasonably foreseeable demand volumes.”¹²⁷

Review of a BOC’s compliance with the OSS requirements of checklist item 2 is divided into six domains representing the various OSS functions that a competitor must have

¹²³ Id. at ¶ 85.

¹²⁴ Id. at ¶ 86.

¹²⁵ Id. at ¶ 88.

¹²⁶ Id.

¹²⁷ Id. at ¶ 89.

access to in order to serve the needs of its customers. The six OSS domains are Change Management and Technical Assistance, Pre-Ordering, Ordering, Provisioning, Maintenance and Repair, and Billing. The BOC must satisfy its requirement of providing nondiscriminatory access to the functions in each of these domains in order to show that it is providing access to its OSS in a manner that is just and reasonable.

b. Overview of OSS

VZ-MA provides CLECs operating in Massachusetts with an extensive array of OSS to obtain information from VZ-MA's databases, place orders for end customer services, report and repair service troubles, and obtain the necessary information to bill their end customers for services provided. VZ-MA also provides CLECs with the necessary documentation, specifications, and training to allow CLECs to build interfaces capable of interrelating with VZ-MA's OSS network and to allow the CLECs' representatives to interact with VZ-MA's systems and databases to serve their end customers. While VZ-MA has developed separate interfaces for CLECs to access VZ-MA's back-end OSS systems and databases, CLEC representatives obtain customer and service information from the same back-end systems and databases that are utilized by VZ-MA's retail representatives.¹²⁸ Further, VZ-MA notes that, in most cases, the interfaces and systems available in Massachusetts are the same as those that Verizon makes available to CLECs operating in New York, though in many cases there are

¹²⁸ VZ-MA Application, Appdx. A, Vol. 1, Tab 2, ¶ 18 (McLean/Wierzbicki Decl.).

separate physical components in place to serve each jurisdiction.¹²⁹

VZ-MA's OSS offerings are divided into six primary domains: Change Management and Technical Assistance; Pre-Ordering; Ordering; Provisioning; Maintenance and Repair; and Billing. Within each of these individual domains, VZ-MA has defined obligations that it must meet in order to satisfy the overall checklist requirement that it provides nondiscriminatory access to its OSS. VZ-MA's OSS offerings in each of these individual domains is discussed in detail below. Further, to show that its OSS are available to CLECs on a nondiscriminatory basis, VZ-MA has subjected its OSS offerings to a comprehensive evaluation by an independent third-party, KPMG, acting under the direction and supervision of the Department.

c. Independent Third-Party Testing

In August 1999, the Department contracted with KPMG to conduct an evaluation of VZ-MA's OSS. The purpose of KPMG's evaluation was to determine whether VZ-MA makes available all of the systems, information, and personnel necessary to enable a CLEC to establish an account relationship with VZ-MA, perform its daily operations at a level consistent with that of VZ-MA's retail operations, and maintain its ongoing relationship. KPMG's evaluation was designed to address VZ-MA's OSS-related offerings in each of the domains specified by the FCC as being essential to a BOC's showing that it provides competitors with nondiscriminatory access to its OSS functions.

In designing its test, KPMG organized its evaluation into five distinct testing domains.

¹²⁹ Id. at ¶ 8.

Because of the interrelation between three OSS functions, KPMG reviewed VZ-MA's Pre-Ordering, Ordering, and Provisioning systems and processes in a combined domain. KPMG examined the systems, interfaces and processes VZ-MA has in place to enable CLECs to discover, report, and resolve service troubles in the Maintenance and Repair domain. In the Billing domain, KPMG reviewed VZ-MA's systems, processes, and procedures for providing CLECs with the usage and billing records that CLECs need in order to accurately bill their end customers. KPMG also evaluated VZ-MA's performance in the Relationship Management and Infrastructure domain, which examined VZ-MA's Change Management processes, Technical Assistance offerings, and account relationship practices. Finally, KPMG conducted a detailed review of VZ-MA's data collection and reporting processes in its Performance Metrics Review domain.

KPMG conducted its review of VZ-MA's OSS through two primary methods. First, KPMG evaluated the "policies, guidelines, training, documentation and work center activities associated with the CLEC/ILEC relationship management process."¹³⁰ Under this method, KPMG examined whether VZ-MA had in place the necessary systems and processes to meet the needs of the CLECs using VZ-MA's wholesale services. The second method KPMG used to evaluate VZ-MA's OSS was through KPMG's assumption of the role of a CLEC operating in Massachusetts. KPMG built a test bed of accounts and used VZ-MA's OSS systems and

¹³⁰ VZ-MA Application, Appdx. I, Vol. 1, Tab 1, at 6 (KPMG Final Report Version 1.4).

personnel in the same manner as a traditional CLEC.¹³¹ Through this transaction-based testing, KPMG was able to evaluate the types of experiences that CLECs have in their relations with VZ-MA.

Overall, KPMG evaluated VZ-MA's wholesale OSS capabilities against 804 individual test points within the five domains. Throughout the testing process, KPMG issued Observation and Exception Reports detailing specific issues with VZ-MA's OSS that required correction. Observations and Exceptions were discussed in conference calls, and, when the specific issue required, KPMG performed retests to ensure that VZ-MA's stated changes had been effectively implemented. In its final report, released September 7, 2000, KPMG reported that VZ-MA had satisfied 800 of the defined test points. The Department has taken responsibility to ensure that VZ-MA implements the necessary changes to resolve the problems related to KPMG's four unsatisfactory results.¹³²

¹³¹ KPMG's transaction-based testing was actually much broader in scope than the interaction that any single CLEC would likely experience with VZ-MA's systems. KPMG, acting as a CLEC, evaluated each of the available service delivery methods (resale, UNE-Platform, and UNE-Loops) and submitted transactions over each of VZ-MA's available interfaces, except the Common Object Request Broker Architecture ("CORBA") pre-order interface.

¹³² See discussion of KPMG's "Not Satisfied" findings at Section V.B.1.e.iv., and Section V.B.1.g.iv., below.

d. Change Management and Technical Assistance

i. Change Management

(A) Standard of Review

A key component of the BOC's demonstration that it provides nondiscriminatory access to its OSS functions is the BOC's showing that it has an adequate Change Management process in place and has adhered to that process over time. In determining whether a BOC has met the Change Management requirements of this checklist item, the FCC has employed a five-point review of the BOC's Change Management process. First, the BOC must make available in a readily accessible and organized fashion any information relating to the Change Management process. The FCC has generally applied this standard as requiring the "memorialization of the Change Management process in a basic document."¹³³ Second, the BOC must show that competing carriers have had substantial input in the design and operation of the Change Management process. Next, the Change Management process must include a procedure for the "timely resolution of change management disputes."¹³⁴ Fourth, the BOC must provide for a stable testing environment that mirrors the production environment. This testing environment must allow competitors to certify their OSS are capable of interacting with the OSS of the BOC, and must also allow competitors to test new software releases before they are implemented in the production environment. Finally, the FCC notes it will examine "the

¹³³ Bell Atlantic New York Order at ¶ 111.

¹³⁴ SBC Texas Order at ¶ 108.